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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/541,485

07/27/2006

Eun-Gi Son

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EXAMINER

MYERS, JESSICA L

ART UNIT

PAPER NUMBER

3746

MAIL DATE

DELIVERY MODE

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/541,485	<b>Applicant(s)</b> SON, EUN-GI
	<b>Examiner</b> JESSICA L. MYERS	<b>Art Unit</b> 3746

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 7/27/06.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07 July 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>7/7/2005</u> .  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Information Disclosure Statement***

1. The information disclosure statement filed 7/7/2005 fails to comply with 37 CFR 1.98(a)(2), which requires a legible copy of each cited foreign patent document; each non-patent literature publication or that portion which caused it to be listed; and all other information or that portion which caused it to be listed. It has been placed in the application file, but the information referred to therein has not been considered.

### ***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:  
  
The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
3. Claim 3 recites the limitation "the coupling portion" in lines 1-2. There is insufficient antecedent basis for this limitation in the claim.

### ***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

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5. Claims 1, 2, 5, 6, and 7 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent 6,612,813 to Kimura et al. (Kimura et al.).

In Reference to Claim 1

Kimura et al. teach a clutchless compressor (see figure 2a) comprising:

a pulley (pulley (32)) actuated by an engine;

a connector member (flat power transmitting pins (36) and power transmitting recesses (37)) fixed to an inner periphery of the pulley and having a number of break portions formed along the circumferential direction thereof (the power transmitting pins (36) are designed to break when excessive torque is applied to them, see column 7 lines 54-65); and

a disk plate (disk like hub (35)) mounted on the connector member to be coupled with the connector member (the hub is connected to the power transmitting pins) while being connected with a rotational shaft of the compressor (the hub is also connected to the shaft via spline engagement or keyway, see column 5 lines 24-31).

In Reference to Claim 2

Kimura et al. teach the clutchless compressor according to claim 1 (see the rejection of claim 1 above), wherein the connector member includes: an insert portion fit into the inner periphery of the pulley (the rightmost end of the power transmitting pins as shown in figure 2(a) are inserted into the power transmitting recesses (37) of the pulley) and a coupling portion coupled with the disk plate (the leftmost end of the power transmitting pins as shown in figure 2(a) are connected directly to the hub) and wherein

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the break portions connect the insert portion with the coupling portion (the central portions of the power transmitting pins are the portions that break under excess torque).

In Reference to Claim 5

Kimura et al. teach the clutchless compressor according to claim 1 (see the rejection of claim 1 above), wherein the connector member includes: an insert portion fit into an inner periphery of the pulley (the rightmost end of the power transmitting pins as shown in figure 2(a) are inserted into the power transmitting recesses (37) of the pulley); a flange (the outer peripheral portion of the pulley (32a) forms a flange) connected with the insert portion and seated on a front portion of the pulley (the pulley flange is connected with the power transmitting pins in the sense that its central portion forms the power transmitting recesses that hold the pins); and a coupling portion coupled with the disk plate (the unnumbered screw that holds the hub on the shaft (6)), and wherein the break portions connect the flange with the coupling portion (the break portions of the pins serve to connect the pulley and its flange to the hub which is connected to the screw).

In Reference to Claim 6

Kimura et al. teach the clutchless compressor according to claim 5 (see the rejection of claim 5 above), wherein a number of connecting slots (the power transmitting recesses (37)) are formed along the circumferential direction on a face of a coupling portion opposite to the disk plate (the coupling portion of the pulley), and wherein the disk plate has connecting projections (power transmitting pins (36)) formed

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in a face thereof opposite to the pulley to correspond to the connecting slots (see figure 3).

In Reference to Claim 7

Kimura et al. teach the clutchless compressor according to claim 6 (see the rejection of claim 6 above), wherein a number of dampers (elastic members (40)) are interposed between the connecting slots and the connecting projections (see figure 3).

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 3 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kimura et al.

In Reference to Claim 3

Kimura et al. teach the clutchless compressor according to claim 1 (see the rejection of claim 1 above), wherein there are a number of projections projected (the power transmitting pins (36)) that are inserted into coupling recesses (power transmitting recesses (37)) to connect the disk plate with the connector member (the pins and recesses connect the disk like hub (35) to the recesses, which are part of the connector member). Kimura et al. do not teach that the recesses are formed on the disk plate or that the pins are formed opposite the disk plate, on the pulley.

However, it would have been obvious to one having ordinary skill in the art at the time the invention was made to reverse the formation of the coupling parts so that the recesses are formed on the disk plate and the pins are formed on the pulley of Kimura et al., since it has been held that a mere reversal of the essential working parts of a device involves only routine skill in the art.

In Reference to Claim 4

Kimura et al. teach the clutchless compressor according to claim 3 (see the rejection of claim 3 above), wherein a number of dampers (elastic members (40)) are interposed between the connecting slots and the connecting projections (see figure 3).

***Conclusion***

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. U.S. Patent 5,683,299 to Kishibuchi et al. teaches a similar power transmitter where the power transmitting recess (13) are formed on the hub (11) and the power transmitting pins (6) are connected to the pulley.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to JESSICA L. MYERS whose telephone number is (571)270-5059. The examiner can normally be reached on Monday through Friday, 8:30am to 5:30pm EST.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Devon Kramer can be reached on 571-272-7118. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

10. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Devon C Kramer/  
Supervisory Patent Examiner, Art  
Unit 3746

/JLM